AUTHOR INDEX TO VOLUME 77

Abushagur, M.A.G., Optical processor for adaptive arrays 77 (1990) 9
Akulshin, A.M., V.A. Sautenkov, V.L. Velichansky, A.S. Zibrov and M.V. Zverkov, Power broadening of saturation absorption resonance on the D_2 line of rubidium 77 (1990) 295
Alehyane, N., see K.B. Youn 77 (1990) 256
Arbaoui, M., see K.B. Youn 77 (1990) 256
Armand, X., see J.C. Mialocq 77 (1990) 185
Asakura, T., see T. Okamoto 77 (1990) 113
Ashraf, I. and M.S. Zubairy, Photon statistics of the two-photon micromaser 77 (1990) 85
Assanto, G., see F.J. Fraile-Peláez 77 (1990) 402
Atkinson, C.H., see D.A. Gilmore 77 (1990) 385

Balle, S., see I. Littler 77 (1990) 390
Balykin, V.I., V.S. Letokhov, Y.B. Ovchinnikov and S.V. Shul'ga, Collimation of atoms localized in a spherical standing light wave 77 (1990) 152
Bann, R., see A.V. Rodé 77 (1990) 163
Bara, S., Z. Jaroszewicz, A. Kołodziejczyk and D. Mouriz, Computer-generated Fourier transform holograms focusing in 2D curves 77 (1990) 360
Barchewitz, R., see K.B. Youn 77 (1990) 256
Bergmann, K., see I. Littler 77 (1990) 390
Bernhardt, M., F. Wyrowski and O. Bryngdahl, Coding and binarization in digital Fresnel holography 77 (1990) 4
Bertsev, V.V., A.A. Pastor and M.O. Bulanin, Stimulated scattering of XeCl and KrF excimer laser radiation by inert gas fluids 77 (1990) 71
Beverini, N., E. Maccioni, D. Pereira, F. Strumia, G. Vissani and Y.-Z. Wang, Wavelength, isotopic shift, and transition rate of the Mg I resonance line 77 (1990) 299
Biaggio, I., M. Zgonik and P. Günter, Build-up and dark decay of transient photorefractive gratings in reduced $KNbO_3$ 77 (1990) 312
Blair, L.T. and L. Solymar, Silver halide reflection noise gratings recorded in dichromated gelatin 77 (1990) 126
Blair, L.T. and L. Solymar, Grating profiles in dichromated gelatin 77 (1990) 365
Bouchiat, M.A., J. Guena, Ph. Jacquier, M. Lintz and L. Pottier, Experimental progress using nonlinear optics for precision measurements of the nuclear weak charge in the 6S–7S Cs transition 77 (1990) 374
Bradley, D.K., see B. Yaakobi 77 (1990) 167
Bryngdahl, O., see M. Bernhardt 77 (1990) 4
Bulanin, M.O., see V.V. Bertsev 77 (1990) 71

Campillo, A.J., see H.-B. Lin 77 (1990) 407
Carter, W.H., Scattering from quasi-homogeneous time fluctuating radiating media 77 (1990) 121
Cerullo, G., see S. De Silvestri 77 (1990) 179
Chang, S., B.M. Garraway and V.G. Minogin, Deep cooling of three-level atoms in two standing waves 77 (1990) 19

Chattopadhyay, T. and M. Nakajima, Scattering matrix formulation of a dielectric Y-branch 77 (1990) 144
Chen, B.S., see H. Kong 77 (1990) 325
Chen, J., see H.J. Eichler 77 (1990) 80
Christov, I.P., On the producing of time-orthogonal pulse shapes 77 (1990) 253
Christov, I.P., see M.B. Danailov 77 (1990) 397
Cirac, J.I. and L.L. Sánchez-Soto, Collective resonance fluorescence in a strongly squeezed vacuum 77 (1990) 26
Cronin-Golomb, M., see H. Kong 77 (1990) 325

Danailov, M.B. and I.P. Christov, Amplification of spatially-dispersed ultrabroadband laser pulses 77 (1990) 397
Danson, C., see A.V. Rodé 77 (1990) 163
De Jong, M.A.M., see B.H.W. Hendriks 77 (1990) 435
Deka, B.K., see W. Zhu 77 (1990) 174
Denz, C., see L. Klees 77 (1990) 65
De Silvestri, S., P. Laporta, V. Magni, G. Valentini and G. Cerullo, Comparative analysis of Nd:YAG unstable resonators with super-gaussian variable reflectance mirrors 77 (1990) 179
Dube, R.R., see A.P. Ghosh 77 (1990) 135

Ehlotzky, F., Remarks on Coulomb corrections in scattering and ionization in a laser field 77 (1990) 309
Eichler, H.J., H. Meng, M. Glotz and J. Chen, Effective generation of 3μm pulsed radiation by Raman scattering in a capillary 77 (1990) 80
Ernst, G.J., see J.W. Gerritsen 77 (1990) 395
Eversole, J.D., see H.-B. Lin 77 (1990) 407

Fellman, T., see B. Ståhlberg 77 (1990) 147
Fill, E.E., M.O. Scully and S.-Y. Zhu, Lasing without inversion via the lambda quantum-beat laser in the collison-dominated regime 77 (1990) 36
Fischer, B., see M. Segev 77 (1990) 265
Fix, A., see A. Piskarskas 77 (1990) 335
Fleisher, M., see U. Mahlab 77 (1990) 415
Forster, E., see A.V. Rodé 77 (1990) 163
Fraile-Peláez, F.J., G. Assanto and D.R. Heatley, Sign-dependent response of nonlinear directional couplers 77 (1990) 402
Freitag, I., see I. Schütz 77 (1990) 221
Friedmann, H., see D. Kagan 77 (1990) 53
Froehly, C., see H. Maillotte 77 (1990) 241

Gallardo, J.C. and C. Pellegrini, Optical klystron configuration for a high gain X-ray free-electron laser 77 (1990) 45
Garraway, B.M., see S. Chang 77 (1990) 19
George, N., see D.J. Schertler 77 (1990) 91
Gerritsen, J.W., A.L. Keet, G.J. Ernst and W.J. Witteman, An improved discharge technique for excimer lasers 77 (1990) 395
Ghosh, A.P. and R.R. Dube, Real-time defect inspection of periodic patterns using self-pumped barium titanate crystal 77 (1990) 135
Gilmore, D.A., P. Vujkovic Cvijin and C.H. Atkinson, Intracavity absorption spectroscopy with a titanium:sapphire laser 77 (1990) 385

Glotz, M., see H.J. Eichler 77 (1990) 80
Gorbachev, V.N. and E.S. Polzik, Squeezing produced by the *n*th harmonic generation inside the laser resonator 77 (1990) 247
Graener, H., see R. Laenen 77 (1990) 226
Grzanna, J. and G. Schulz, Absolute testing of flatness standards at square-grid points 77 (1990) 107
Gu, E., G.V. Marr and M.A. Player, Optimization of reflectivity of periodic and quasi-periodic multilayers films at soft X-ray wavelengths 77 (1990) 99
Guena, J., see M.A. Bouchiat 77 (1990) 374
Günter, P., see I. Biaggio 77 (1990) 312
Günter, P., see C. Medrano 77 (1990) 411
Guo, H. and Q. Lou, The study of the processes of laser-induced vaporization of copper surface by time-resolved laser beam deflection technique 77 (1990) 381

Heatley, D.R., see F.J. Fraile-Peláez 77 (1990) 402
Hébert, Ph., see J.C. Mialocq 77 (1990) 185
Hendriks, B.H.W., M.A.M. de Jong and G. Nienhuis, Dynamical behavior of a single-mode laser coupled to a phase-conjugate mirror 77 (1990) 435
Hoenders, B.J., see W. Kamminga 77 (1990) 423
Holland, M.J., see S.M. Tan 77 (1990) 285
Howorka, F., see J. Mizeraczyk 77 (1990) 192

Ingold, M., see C. Medrano 77 (1990) 411
Inguscio, M., see L. Zink 77 (1990) 41
Ishida, Y., see N. Sarukura 77 (1990) 49
Izatt, J.R., see W. Zhu 77 (1990) 174

Jabczynski, J.K., A "diffraction-free" resonator 77 (1990) 292
Jacquier, Ph., see M.A. Bouchiat 77 (1990) 374
Jaroszewicz, Z., see S. Bara 77 (1990) 360
Johnson, R.P., Correction of optical phase aberration by phase conjugation and Type II frequency doubling 77 (1990) 231
Joshi, K.C., see H.C. Kandpal 77 (1990) 1
Jungner, P., see B. Ståhlberg 77 (1990) 147

Kagan, D., H. Friedmann and A.D. Wilson-Gordon, Interaction of a bichromatic field with a two-level system in a cavity 77 (1990) 53
Kamminga, W. and B.J. Hoenders, Experiences with finite element calculations of waveguide coupling problems 77 (1990) 423
Kamshilin, A.A., see A.L. Khromov 77 (1990) 139
Kandpal, H.C., J.S. Vaishya and K.C. Joshi, Generation of sharp spectral lines under controlled source correlation 77 (1990) 1
Keet, A.L., see J.W. Gerritsen 77 (1990) 395
Khromov, A.L., A.A. Kamshilin and M.P. Petrov, Photochromic and photorefractive gratings induced by pulsed excitation in BSO crystals 77 (1990) 139
Klees, L., C. Denz and T. Tschudi, Intensity crosstalk and angular selectivity of multibeam coupling in photorefractive $BaTiO_3$ 77 (1990) 65
Knauer, J.P., see B. Yaakobi 77 (1990) 167

Kocharovskaya, O., R.-D. Li and P. Mandel, Lasing without inversion: the double Λ scheme 77 (1990) 215
Kołodziejczyk, A., see S. Bara 77 (1990) 360
Kong, H., B.S. Chen and M. Cronin-Golomb, Ti:Al_2O_3 laser with phase conjugate feedback of the residual pump 77 (1990) 325
Korchazhkin, S.V., L.O. Krasnova and V.V. Manikalo, Measurements of radiation energy distributions of infrared laser using an interference method 77 (1990) 197
Krasnova, L.O., see S.V. Korchazhkin 77 (1990) 197

Laenen, R., H. Graener and A. Laubereau, Tunable subpicosecond pulses in the infrared by optical parametric oscillation 77 (1990) 226
Lambert, D., see J.C. Mialocq 77 (1990) 185
Lanen, T.A.W.M., C. Nebbeling and J.L. van Ingen, Phase-stepping holographic interferometry in studying transparent density fields around 2-D objects of arbitrary shape, Optics Comm. 76 (1990) 268. Erratum 77 (1990) 451
Laporta, P., see S. De Silvestri 77 (1990) 179
Laubereau, A., see R. Laenen 77 (1990) 226
Lawandy, N.M. and M.D. Selker, Observation of seeded second harmonic generation in bulk germanosilicate fiber preforms 77 (1990) 339
Leonardi, C., see A. Vaglica 77 (1990) 235
Letokhov, V.S., see V.I. Balykin 77 (1990) 152
Li, R.-D., see O. Kocharovskaya 77 (1990) 215
Lin, H.-B., J.D. Eversole and A.J. Campillo, Identification of morphology dependent resonances in stimulated Raman scattering from microdroplets 77 (1990) 407
Lintz, M., see M.A. Bouchiat 77 (1990) 374
Littler, I., S. Balle and K. Bergmann, Molecular beam Raman laser with a 250 nW threshold pump power 77 (1990) 390
Liu, L., see C. Pan 77 (1990) 210
Liu, L., L. Ye and X. Liu, Talbot interferometry using logic-operated moire 77 (1990) 279
Liu, X., see L. Liu 77 (1990) 279
Lou, Q., see H. Guo 77 (1990) 381
Lu, N., Photon statistics in a single-mode two-photon laser: exact versus effective interaction hamiltonian 77 (1990) 203

Maccioni, E., see N. Beverini 77 (1990) 299
Magni, V., see S. De Silvestri 77 (1990) 179
Mahlab, U., M. Fleisher and J. Shamir, Error probability in optical pattern recognition 77 (1990) 415
Maillotte, H., J. Monneret and C. Froehly, Noise-free phase conjugation of high power single mode laser beams by stimulated Brillouin scattering 77 (1990) 241
Maksimchuk, A.M., see A.V. Rodé 77 (1990) 163
Mandel, P., see O. Kocharovskaya 77 (1990) 215
Manikalo, V.V., see S.V. Korchazhkin 77 (1990) 197
Mao, Y.-J., see C.-X. Shi 77 (1990) 13
Marr, G.V., see E. Gu 77 (1990) 99
Marshall, F.J., see B. Yaakobi 77 (1990) 167
Medrano, C., M. Ingold and P. Günter, Self-pumped optical phase conjugation and light oscillation in Fe doped $KNbO_3$ 77 (1990) 411
Meng, H., see H.J. Eichler 77 (1990) 80

Meucci, R., see L. Zink 77 (1990) 41
Meyer, M., see J.C. Mialocq 77 (1990) 185
Mialocq, J.C., M. Meyer, Ph. Hébert, X. Armand and D. Lambert, Photostability of aqueous micellar rhodamine 6G laser dye solutions under XeCl laser pumping 77 (1990) 185
Minogin, V.G., see S. Chang 77 (1990) 19
Mizeraczyk, J., F. Howorka and K. Rozsa, Radial distributions of the charged particles in a He–Kr hollow cathode discharge 77 (1990) 192
Molesini, G., M.V. Pires de Souza, F. Quercioli and M. Trivi, Experimental statistics of fully developed speckle fields by phase-shifting interferometry 77 (1990) 129
Monneret, J., see H. Maillotte 77 (1990) 241
Mouriz, D., see S. Bara 77 (1990) 360

Nakajima, M., see T. Chattopadhyay 77 (1990) 144
Nakano, H., see N. Sarukura 77 (1990) 49
Nasalski, W., Nonspecular bistability versus diffraction at nonlinear hybrid interfaces 77 (1990) 443
Nebbeling, C., see T.A.W.M. Lanen 77 (1990) 451
Nienhuis, G., see B.H.W. Hendriks 77 (1990) 435

Okada, K., H. Sakuta, T. Ose and J. Tsujiuchi, Error analysis on the phase calculation from superimposed interferograms generated by a wavelength scanning interferometer 77 (1990) 343
Okamoto, T. and T. Asakura, Velocity dependence of image speckles produced by a moving diffuser under dynamic speckle illumination 77 (1990) 113
Ophir, Y., see M. Segev 77 (1990) 265
Ose, T., see K. Okada 77 (1990) 343
Ovchinnikov, Y.B., see V.I. Balykin 77 (1990) 152

Pan, C. and L. Liu, Study of fill factor in self-imaging aperture filling of phase-locked arrays 77 (1990) 210
Pando Lambruschini, C.L., Bifurcation phenomena in a system of two-level atoms in front of a phase-conjugate mirror 77 (1990) 157
Pastor, A.A., see V.V. Bertsev 77 (1990) 71
Pavone, F.S., see L. Zink 77 (1990) 41
Pegg, D.T., see G.S. Summy 77 (1990) 75
Pellegrini, C., see J.C. Gallardo 77 (1990) 45
Pereira, D., see N. Beverini 77 (1990) 299
Petrov, M.P., see A.L. Khromov 77 (1990) 139
Pires de Souza, M.V., see G. Molesini 77 (1990) 129
Piskarskas, A., V. Smilgevicius, A. Umbrasas, A. Fix and R. Wallenstein, Parametric oscillation in beta-barium-borate synchronously pumped by the third harmonic of a continuously excited mode-locked and Q-switched Nd:YAG laser 77 (1990) 335
Player, M.A., see E. Gu 77 (1990) 99
Polzik, E.S., see V.N. Gorbachev 77 (1990) 247
Pottier, L., see M.A. Bouchiat 77 (1990) 374
Prevedelli, M., see L. Zink 77 (1990) 41

Quercioli, F., see G. Molesini 77 (1990) 129

Rentzepis, P.M., see S.M. Saltiel 77 (1990) 59

Ridgeley, A., see A.V. Rodé 77 (1990) 163
Rizvi, N., see A.V. Rodé 77 (1990) 163
Rodé, A.V., A.M. Maksimchuk, G.V. Sklizkov, A. Ridgeley, C. Danson, N. Rizvi, R. Bann, E. Forster and I. Uschmann, Intensity measurements of a quasi-monochromatic X-ray beam formed by a spherically bent crystal 77 (1990) 163
Roy, R., see G. Vemuri 77 (1990) 318
Rozsa, K., see J. Mizeraczyk 77 (1990) 192
Ruyten, W.M., Optical Haroche and Hanle resonances 77 (1990) 329

Sakuta, H., see K. Okada 77 (1990) 343
Saltiel, S.M., B. Van Wonterghem and P.M. Rentzepis, The third order nonlinear susceptibility of semiconductor doped glasses at low power excitation 77 (1990) 59
Sánchez-Soto, L.L., see J.I. Cirac 77 (1990) 26
Sarukura, N., Y. Ishida and H. Nakano, Compression of intra-cavity chirped pulses from a cw passive mode-locked Tl:sapphire laser 77 (1990) 49
Sautenkov, V.A., see A.M. Akulshin 77 (1990) 295
Schertler, D.J. and N. George, Comparison of wavelength scanning and pulse echo systems in remote sensing 77 (1990) 91
Schulz, G., see J. Grzanna 77 (1990) 107
Schütz, I., I. Freitag and R. Wallenstein, Miniature self-frequency doubling cw Nd:YAB laser pumped by a diode-laser 77 (1990) 221
Scully, M.O., see E.E. Fill 77 (1990) 36
Segev, M., Y. Ophir and B. Fischer, Nonlinear multi two-wave mixing, the fanning process and its bleaching in photorefractive media 77 (1990) 265
Selker, M.D., see N.M. Lawandy 77 (1990) 339
Sella, C., see K.B. Youn 77 (1990) 256
Seta, K. and B.K. Ward, Interferometric absolute distance measurement utilizing a mode-jump region of a laser diode 77 (1990) 275
Shamir, J., see U. Mahlab 77 (1990) 415
Sharma, A., Molecular emission following laser evaporation of copper aerosol 77 (1990) 303
Shay, T.M., Ultrahigh-resolution, wide-field-of-view Cs optical filter for doubled Nd lasers 77 (1990) 368
Shi, C.-X. and Y.-J. Mao, Polarization coupling in single-mode single-polarization optical fibers: power coupling 77 (1990) 13
Shul'ga, S.V., see V.I. Balykin 77 (1990) 152
Simon, R., Nondepolarizing systems and degree of polarization 77 (1990) 349
Sklizkov, G.V., see A.V. Rodé 77 (1990) 163
Smilgevicius, V., see A. Piskarskas 77 (1990) 335
Solymar, L., see L.T. Blair 77 (1990) 126, 365
Soures, J.M., see B. Yaakobi 77 (1990) 167
Ståhlberg, B., P. Jungner, T. Fellman, K.-A. Suominen and S. Stenholm, Laser induced polarization properties of a neon three-level system 77 (1990) 147
Stenholm, S., see B. Ståhlberg 77 (1990) 147
Strumia, F., see N. Beverini 77 (1990) 299
Summy, G.S. and D.T. Pegg, Phase optimized quantum states of light 77 (1990) 75
Suominen, K.-A., see B. Ståhlberg 77 (1990) 147

Tan, S.M., M.J. Holland and D.F. Walls, Bell's inequality for systems with quadrature phase coherence 77 (1990) 285
Theophanous, N.G., Dispersion of the Kerr effect in nitrobenzene at visible wavelengths; analysis and interpretation 77 (1990) 31

Trivi, M., see G. Molesini 77 (1990) 129
Tschudi, T., see L. Klees 77 (1990) 65
Tsujiuchi, J., see K. Okada 77 (1990) 343

Umbrasas, A., see A. Piskarskas 77 (1990) 335
Uschmann, I., see A.V. Rodé 77 (1990) 163

Vaglica, A., C. Leonardi and G. Vetri, Squeezing properties of a nearly degenerate parametric amplifier 77 (1990) 235
Vaishya, J.S., see H.C. Kandpal 77 (1990) 1
Valentini, G., see S. De Silvestri 77 (1990) 179
Van Ingen, J.L., see T.A.W.M. Lanen 77 (1990) 451
Van Wonterghem, B., see S.M. Saltiel 77 (1990) 59
Velichansky, V.L., see A.M. Akulshin 77 (1990) 295
Vemuri, G. and R. Roy, Effect of injected field statistics on transient dynamics of an injection seeded laser 77 (1990) 318
Verdon, C.P., see B. Yaakobi 77 (1990) 167
Vetri, G., see A. Vaglica 77 (1990) 235
Vissani, G., see N. Beverini 77 (1990) 299
Vujkovic Cvijin, P., see D.A. Gilmore 77 (1990) 385

Wallenstein, R., see I. Schütz 77 (1990) 221
Wallenstein, R., see A. Piskarskas 77 (1990) 335
Walls, D.F., see S.M. Tan 77 (1990) 285
Wang, Y.-Z., see N. Beverini 77 (1990) 299
Ward, B.K., see K. Seta 77 (1990) 275
Wilson-Gordon, A.D., see D. Kagan 77 (1990) 53
Witteman, W.J., see J.W. Gerritsen 77 (1990) 395
Wynne, C.G., Immersed gratings and associated phenomena – III 77 (1990) 355
Wyrowski, F., see M. Bernhardt 77 (1990) 4

Yaakobi, B., D.K. Bradley, F.J. Marshall, J.P. Knauer, J.M. Soures and C.P. Verdon, Absorption lines analysis of laser imploded targets 77 (1990) 167
Ye, L., see L. Liu 77 (1990) 279
Youn, K.B., C. Sella, R. Barchewitz, M. Arbaoui and N. Alehyane, Absolute reflectivity measurements of multilayered interference mirrors in the soft X-ray region 77 (1990) 256

Zgonik, M., see I. Biaggio 77 (1990) 312
Zhu, S.-Y., see E.E. Fill 77 (1990) 36
Zhu, W., B.K. Deka and J.R. Izatt, Use of Edser–Butler fringes for tunable-laser linewidth measurements 77 (1990) 174
Zibrov, A.S., see A.M. Akulshin 77 (1990) 295
Zink, L., F.S. Pavone, R. Meucci, M. Prevedelli and M. Inguscio, External cell optogalvanic stabilization of a CO_2 laser: quantitative analysis and frequency measurement in the sequence band 77 (1990) 41
Zubairy, M.S., see I. Ashraf 77 (1990) 85
Zverkov, M.V., see A.M. Akulshin 77 (1990) 295

SUBJECT INDEX TO VOLUME 77

Polarization coupling in single-mode single-polarization optical fibers: power coupling, C.-X. Shi and Y.-J. Mao 77 (1990) 13

Propagation and transmission in homogeneous media

Generation of sharp spectral lines under controlled source correlation, H.C. Kandpal, J.S. Vaishya and K.C. Joshi 77 (1990) 1
Comparison of wavelength scanning and pulse echo systems in remote sensing, D.J. Schertler and N. George 77 (1990) 91
Absolute testing of flatness standards at square-grid points, J. Grzanna and G. Schulz 77 (1990) 107
Absolute reflectivity measurements of multilayered interference mirrors in the soft X-ray region, K.B. Youn, C. Sella, R. Barchewitz, M. Arbaoui and N. Alehyane 77 (1990) 256
Interferometric absolute distance measurement utilizing a mode-jump region of a laser diode, K. Seta and B.K. Ward 77 (1990) 275
Talbot interferometry using logic-operated moire, L. Liu, L. Ye and X. Liu 77 (1990) 279
Bell's inequality for systems with quadrature phase coherence, S.M. Tan, M.J. Holland and D.F. Walls 77 (1990) 285
Error analysis on the phase calculation from superimposed interferograms generated by a wavelength scanning interferometer, K. Okada, H. Sakuta, T. Ose and J. Tsujiuchi 77 (1990) 343
Nondepolarizing systems and degree of polarization, R. Simon 77 (1990) 349
Immersed gratings and associated phenomena – III, C.G. Wynne 77 (1990) 355

Propagation and transmission in inhomogeneous media

Velocity dependence of image speckles produced by a moving diffuser under dynamic speckle illumination, T. Okamoto and T. Asakura 77 (1990) 113
Scattering from quasi-homogeneous time fluctuating radiating media, W.H. Carter 77 (1990) 121

Optical information, image formation and analysis, optical computing

Coding and binarization in digital Fresnel holography, M. Bernhardt, F. Wyrowski and O. Bryngdahl 77 (1990) 4
Optical processor for adaptive arrays, M.A.G. Abushagur 77 (1990) 9
Silver halide reflection noise gratings recorded in dichromated gelatin, L.T. Blair and L. Solymar 77 (1990) 126
Experimental statistics of fully developed speckle fields by phase-shifting interferometry, G. Molesini, M.V. Pires de Souza, F. Quercioli and M. Trivi 77 (1990) 129
Real-time defect inspection of periodic patterns using self-pumped barium titanate crystal, A.P. Ghosh and R.R. Dube 77 (1990) 135
Photochromic and photorefractive gratings induced by pulsed excitation in BSO crystals, A.L. Khromov, A.A. Kamshilin and M.P. Petrov 77 (1990) 139

A "diffraction-free" resonator, J.K. Jabczynski 77 (1990) 292
Computer-generated Fourier transform holograms focusing in 2D curves, S. Bara, Z. Jaroszewicz, A. Kołodziejczyk and D. Mouriz 77 (1990) 360
Grating profiles in dichromated gelatin, L.T. Blair and L. Solymar 77 (1990) 365
Error probability in optical pattern recognition, U. Mahlab, M. Fleisher and J. Shamir 77 (1990) 415
Phase-stepping holographic interferometry in studying transparent density fields around 2-D objects of arbitrary shape, Optics Comm. 76 (1990) 268. Erratum, T.A.W.M. Lanen, C. Nebbeling and J.L. van Ingen 77 (1990) 451

Optical communications

Scattering matrix formulation of a dielectric Y-branch, T. Chattopadhyay and M. Nakajima 77 (1990) 144
Ultrahigh-resolution, wide-field-of-view Cs optical filter for doubled Nd lasers, T.M. Shay 77 (1990) 368
Experiences with finite element calculations of waveguide coupling problems, W. Kamminga and B.J. Hoenders 77 (1990) 423

Atomic and molecular physics

Deep cooling of three-level atoms in two standing waves, S. Chang, B.M. Garraway and V.G. Minogin 77 (1990) 19
Collective resonance fluorescence in a strongly squeezed vacuum, J.I. Cirac and L.L. Sánchez-Soto 77 (1990) 26
Dispersion of the Kerr effect in nitrobenzene at visible wavelengths; analysis and interpretation, N.G. Theophanous 77 (1990) 31
Laser induced polarization properties of a neon three-level system, B. Ståhlberg, P. Jungner, T. Fellman, K.-A. Suominen and S. Stenholm 77 (1990) 147
Collimation of atoms localized in a spherical standing light wave, V.I. Balykin, V.S. Letokhov, Y.B. Ovchinnikov and S.V. Shul'ga 77 (1990) 152
Bifurcation phenomena in a system of two-level atoms in front of a phase-conjugate mirror, C.L. Pando Lambruschini 77 (1990) 157
Power broadening of saturation absorption resonance on the D_2 line of rubidium, A.M. Akulshin, V.A. Sautenkov, V.L. Velichansky, A.S. Zibrov and M.V. Zverkov 77 (1990) 295
Wavelength, isotopic shift, and transition rate of the Mg I resonance line, N. Beverini, E. Maccioni, D. Pereira, F. Strumia, G. Vissani and Y.-Z. Wang 77 (1990) 299
Molecular emission following laser evaporation of copper aerosol, A. Sharma 77 (1990) 303
Remarks on Coulomb corrections in scattering and ionization in a laser field, F. Ehlotzky 77 (1990) 309
Ultrahigh-resolution, wide-field-of-view Cs optical filter for doubled Nd lasers, T.M. Shay 77 (1990) 368
Experimental progress using nonlinear optics for precision measurements of the nuclear weak charge in the 6S–7S Cs transition, M.A. Bouchiat, J. Guena, Ph. Jacquier, M. Lintz and L. Pottier 77 (1990) 374

Condensed matter

Optimization of reflectivity of periodic and quasiperiodic multilayers films at soft X-ray wavelengths, E. Gu, G.V. Marr and M.A. Player 77 (1990) 99
Build-up and dark decay of transient photorefractive gratings in reduced $KNbO_3$, I. Biaggio, M. Zgonik and P. Günter 77 (1990) 312

Plasmas

Intensity measurements of a quasi-monochromatic X-ray beam formed by a spherically bent crystal, A.V. Rodé, A.M. Maksimchuk, G.V. Sklizkov, A. Ridgeley, C. Danson, N. Rizvi, R. Bann, E. Forster and I. Uschmann 77 (1990) 163
Absorption lines analysis of laser imploded targets, B. Yaakobi, D.K. Bradley, F.J. Marshall, J.P. Knauer, J.M. Soures and C.P. Verdon 77 (1990) 167

Lasers

Lasing without inversion via the lambda quantum-beat laser in the collison-dominated regime, E.E. Fill, M.O. Scully and S.-Y. Zhu 77 (1990) 36
External cell optogalvanic stabilization of a CO_2 laser: quantitative analysis and frequency measurement in the sequence band, L. Zink, F.S. Pavone, R. Meucci, M. Prevedelli and M. Inguscio 77 (1990) 41
Optical klystron configuration for a high gain X-ray free-electron laser, J.C. Gallardo and C. Pellegrini 77 (1990) 45
Use of Edser–Butler fringes for tunable-laser linewidth measurements, W. Zhu, B.K. Deka and J.R. Izatt 77 (1990) 174
Comparative analysis of Nd:YAG unstable resonators with super-gaussian variable reflectance mirrors, S. De Silvestri, P. Laporta, V. Magni, G. Valentini and G. Cerullo 77 (1990) 179
Photostability of aqueous micellar rhodamine 6G laser dye solutions under XeCl laser pumping, J.C. Mialocq, M. Meyer, Ph. Hébert, X. Armand and D. Lambert 77 (1990) 185
Radial distributions of the charged particles in a He–Kr hollow cathode discharge, J. Mizeraczyk, F. Howorka and K. Rozsa 77 (1990) 192
Measurements of radiation energy distributions of infrared laser using an interference method, S.V. Korchazhkin, L.O. Krasnova and V.V. Manikalo 77 (1990) 197
Photon statistics in a single-mode two-photon laser: exact versus effective interaction hamiltonian, N. Lu 77 (1990) 203
Study of fill factor in self-imaging aperture filling of phase-locked arrays, C. Pan and L. Liu 77 (1990) 210
Lasing without inversion: the double Λ scheme, O. Kocharovskaya, R.-D. Li and P. Mandel 77 (1990) 215
Miniature self-frequency doubling cw Nd:YAB laser pumped by a diode-laser, I. Schütz, I. Freitag and R. Wallenstein 77 (1990) 221
Tunable subpicosecond pulses in the infrared by optical parametric oscillation, R. Laenen, H. Graener and A. Laubereau 77 (1990) 226
Effect of injected field statistics on transient dynamics of an injection seeded laser, G. Vemuri and R. Roy 77 (1990) 318
Ultrahigh-resolution, wide-field-of-view Cs optical filter for doubled Nd lasers, T.M. Shay 77 (1990) 368
The study of the processes of laser-induced vaporization of copper surface by time-resolved laser beam deflection technique, H. Guo and Q. Lou 77 (1990) 381
Intracavity absorption spectroscopy with a titanium:sapphire laser, D.A. Gilmore, P. Vujkovic Cvijin and C.H. Atkinson 77 (1990) 385
Molecular beam Raman laser with a 250 nW threshold pump power, I. Littler, S. Balle and K. Bergmann 77 (1990) 390
An improved discharge technique for excimer lasers, J.W. Gerritsen, A.L. Keet, G.J. Ernst and W.J. Witteman 77 (1990) 395
Amplification of spatially-dispersed ultrabroadband laser pulses, M.B. Danailov and I.P. Christov 77 (1990) 397
Dynamical behavior of a single-mode laser coupled to a phase-conjugate mirror, B.H.W. Hendriks, M.A.M. de Jong and G. Nienhuis 77 (1990) 435

Nonlinear optics

Compression of intra-cavity chirped pulses from a cw passive mode-locked Tl:sapphire laser, N. Sarukura, Y. Ishida and H. Nakano 77 (1990) 49
Interaction of a bichromatic field with a two-level system in a cavity, D. Kagan, H. Friedmann and A.D. Wilson-Gordon 77 (1990) 53
The third order nonlinear susceptibility of semiconductor doped glasses at low power excitation, S.M. Saltiel, B. Van Wonterghem and P.M. Rentzepis 77 (1990) 59
Intensity crosstalk and angular selectivity of multibeam coupling in photorefractive $BaTiO_3$, L. Klees, C. Denz and T. Tschudi 77 (1990) 65
Stimulated scattering of XeCl and KrF excimer laser radiation by inert gas fluids, V.V. Bertsev, A.A. Pastor and M.O. Bulanin 77 (1990) 71
Phase optimized quantum states of light, G.S. Summy and D.T. Pegg 77 (1990) 75
Effective generation of 3μm pulsed radiation by Raman scattering in a capillary, H.J. Eichler, H. Meng, M. Glotz and J. Chen 77 (1990) 80
Photon statistics of the two-photon micromaser, I. Ashraf and M.S. Zubairy 77 (1990) 85
Photochromic and photorefractive gratings induced by pulsed excitation in BSO crystals, A.L. Khromov, A.A. Kamshilin and M.P. Petrov 77 (1990) 139
Bifurcation phenomena in a system of two-level atoms in front of a phase-conjugate mirror, C.L. Pando Lambruschini 77 (1990) 157
Tunable subpicosecond pulses in the infrared by optical parametric oscillation, R. Laenen, H. Graener and A. Laubereau 77 (1990) 226
Correction of optical phase aberration by phase conjugation and Type II frequency doubling, R.P. Johnson 77 (1990) 231
Squeezing properties of a nearly degenerate parametric amplifier, A. Vaglica, C. Leonardi and G. Vetri 77 (1990) 235
Noise-free phase conjugation of high power single mode laser beams by stimulated Brillouin scattering, H. Maillotte, J. Monneret and C. Froehly 77 (1990) 241
Squeezing produced by the *n*th harmonic generation inside the laser resonator, V.N. Gorbachev and E.S. Polzik 77 (1990) 247
On the producing of time-orthogonal pulse shapes, I.P. Christov 77 (1990) 253
Nonlinear multi two-wave mixing, the fanning process and its bleaching in photorefractive media, M. Segev, Y. Ophir and B. Fischer 77 (1990) 265
Ti:Al_2O_3 laser with phase conjugate feedback of the residual pump, H. Kong, B.S. Chen and M. Cronin-Golomb 77 (1990) 325
Optical Haroche and Hanle resonances, W.M. Ruyten 77 (1990) 329
Parametric oscillation in beta-barium-borate synchronously pumped by the third harmonic of a continuously excited mode-locked and Q-switched Nd:YAG laser, A. Piskarskas, V. Smilgevicius, A. Umbrasas, A. Fix and R. Wallenstein 77 (1990) 335
Observation of seeded second harmonic generation in bulk germanosilicate fiber preforms, N.M. Lawandy and M.D. Selker 77 (1990) 339
Sign-dependent response of nonlinear directional couplers, F.J. Fraile-Peláez, G. Assanto and D.R. Heatley 77 (1990) 402
Identification of morphology dependent resonances in stimulated Raman scattering from microdroplets, H.-B. Lin, J.D. Eversole and A.J. Campillo 77 (1990) 407
Self-pumped optical phase conjugation and light oscillation in Fe doped $KNbO_3$, C. Medrano, M. Ingold and P. Günter 77 (1990) 411
Dynamical behavior of a single-mode laser coupled to a phase-conjugate mirror, B.H.W. Hendriks, M.A.M. de Jong and G. Nienhuis 77 (1990) 435
Nonspecular bistability versus diffraction at nonlinear hybrid interfaces, W. Nasalski 77 (1990) 443